

Chordate precursors of kisspeptin-type peptides

HsKPP1 NP_002247.1
MNSLVSWQLLLFLCATHFGEPLEKVASVGNRSRPTGQQLESILGLLAPGEQSLPCTERKPAATARLSRRGTSLSPPP
HsKP1
ESSGSPQQPGLSAPHSRQIPAPQGAVLVQREKDLPNYNWNSFGLRFKREAAPGNHGRSAGRG

LoKPP1 XP_015197899.1
MGHTGKEMPCSPLRTESTMLLLTMMLMMSVQLVEPWAGHPQISSASPTVSGKKPEPGVQDILRRMSTTPPPGARL
LoKP1
ILPAAGKIPPALASLLFGSRFPRRGWAQARPQPAAKREKNLSAYNWNFSGLRYGKRRSNTPPPQLG

LoKPP2 XP_015207582.1
MNRFLLLLAADVVCQRTMGKPLSGSSPAEQFQNSASTPAGLGSLPHLAVREVEGPNSADQASLCYFVQESEVES
LoKP2
QISCKLFRTRSKFNFPFGLRFKRNRNIVANDRSAIPSELLLYLLYLKETGLAP

LoKPP3 XP_015195061.1 LoKP3.1
MRLPAISLLVAAVCLGVQSDPSQFLPLPLRTLRYRNVD SAPPPLPVDAPGLLASRLEGDSRRQAGEPYNVNSFG
LoKP3.2
LRFKKRDTQISWISSGLRSGKGRPERGEA

BfKPP1 XP_002608257.1
MRTTAFLLASLLVLLHTILPSTVDSLALGGREAHQRQDCGGRRIRSRVPVGLKRAWPDRRGGLNSDDIFWEDTLP
BfKP1
NSIERRQPSTEIDDEEVVDSADPDVQYNPNAWSRFGSRMCP

BfKPP2 XP_002591617.1
MAVEAQMTSRAVVAVLLVSMATSHPAAHAHLVSWAVPAKIEAQAPAPQYEDVADSNLSALEAHEPLLEALSPESQ
BfKP2
PRHPASQPD SYRPLLIRLPWPLARALSKRARKPPNMNAWGQPWGKRDLSLVN

BfKPP3 XP_002608256.
MSPHIPGKTMVALLLILA AVASESRFAHKLPSFPGLQQTSGPYGPREPATTPLRSTQESRWQPKPAGVVQTSE
BfKP3
GSSAGFGLLHEWFRIGSKRSGGAWVADTNMDDISPMMFSLHGKRNVS

BfKPP4 XP_002608492.1
MMKRLLVAVLLLVACSMGCRGTQRDILLPHGAREDTAKSGDGRAVHDAVLLREVLTHGPTIEALVRSTMTTVLV
ATGWMYKMMHGKVPGLDGSSRRGLQQGRRQGEEASTLHGILTSNIATTEQNSTSTARQTTEVSTSHTRASGWE
BfKP4.1 BfKP4.2
YENEPPEYNPNWSVFGRMVSPQASPAPPEQDDEPGVPGMPVLAEMPPKAAANLNMWSFGRRSAADRIPERTRD
BfKP4.3
GSPVRSSSVNP AFFLTPFGDQTDKQRSIEERQVKQTGDAAASHKRTDPDRVYPPNARPTLQPDWTKIPFFG

Echinoderm precursors of kisspeptin-like peptides

ArKPP1 ALJ99947.1
MEWFTKCLLVILAVCFGSSFVLGDGRNLQGYNGDLYNGEFENEETALRNIIIGQIIDDVDAKNNIRTAILEDT
ArKP1.1 ArKP1.2
LEHAQYEPDKRSGRCSRSGTKCIMRGPNPNTASRVLPFGKREDDSPNKLARRGRGPPKNSRARGGRTLLPFGKRR

SpKPP1 XP_003725009.1
MMEVRTSVTAVTVLLALLCAVATGDDYVPSKLYADSSPGSMYDVG VATQPDNDNDVDDLMTVIARLIQNIDPN
SpKP1.1
KLDKASTHRLAAITGLNPPQQIHL SKALLDENLDPANADFMIPDDDKRSRCRGRQC RNVGGLNPANLRPLPFG
SpKP1.2
KRSRFS GASQHQGSLSSSSSLGDFSNKRGRTKNRIRERVPHF LPFGRR

AjKPP1 AWU78782.1
MDKIVFPILLSLLCGTVFSASLADTNLKDYEDRLDDARERVLKLIAGLLSDDTYQEQTGEQDEDDLAVNIPILE
AjKP1.1
NLLAENDGEDVIDADDTAELIFESLSNNGRPIDEKRAGSLDCLEASCEDVERRGRQPNRNAHYRTLPGKRVQRQ
AjKP1.2
TFSTVRNTKSAVKNNKNSRARPPLLPGK

ArKPP2 ALJ99949.1
MLLAMAPNGEMMTRFLLAAHFLLLAVSIVNARVYFNGEDETksGllELSEYGENEKVDGTEDVDGQQVEDRQWKG
ArKP2.1
EDQWKSGLYAAQRSLQSYNPNTAKRSWPQTGMYNKQSTNWLRLALAQEPRWHSAMAKRQLWANQQSGLFGKREADME
ArKP2.2
RTLPAWNVKRSAEEREFARQSGGGVPHVFQSGGIFGKRSSDDWAKRYE

SpKPP2 XP_011683115.1
MALNRLKVACCVFVYLCLALLTSAKEFSPLTGDDFAKNYDPQPWGVDPNAPMNLQDPQNTFYNEADVKGELDEK
SpKP2.1
RGTKNDRLRGLRRLSRLYGELGLDRLRPVKKTPETADDMYSLDDKRNDAGMPKRDAGPHAWYGTGMFGKRTDENR
SpKP2.2
GRWRIRSPRPQPYRVGLFGKRDFETVDMNELAQIIEAIREDESRR

SpKPP3 XP_011679113.2
MAYFLRSMIFNVIITSVLLALFIGTVPSQTANAYDEVKQWHNELDDPDTTYQHIESAGKNDEKRNAFNNDKLRGL
RRLSRIIDSLGFESDIRPAKKSPEIVDKLDNANGNGGRQIVSSGHIINQNSGVIDDAIPLVGDGLRNVASPDQMD
SpKP3
GRQTPSDQQEGWKLKSRVTTNADEPKETGVPKRSALGLEAFRQKSRESRRRWGGKASRPQPFRIGLFGKRDAAET
LGMINTSDLADIIAEMLNQDPNNNQPSQTD

AjKPP2 AXU40272.1
MANLYYISISLIIVVVLSSVICVLADGIDGESPLAKRRRLSIEKLRNTGRLRRIFKKRFDENEFQGVDDDELMS
AjKP2.1 AjKP2.2
PTDFLDLDELEALERLKENKIEYEKRGNAAREGSRKMNGWYTGMFGKRSSAASIRETRNIPQTYLSGDYFGKRF
SDESPAEGLDWKRTYNLEDTAEDLE

Echinoderm precursors of L-type SALMFamide peptides

ArL-SALMFa ALJ99974.1
ArS1.1
MKGQHLLAVAVVVVAGSFGIIEAYSPFGGYNRAPFDNVWVRADSMARGGSTGEDEANEQRMTGAKRPAGASAFHS
ArS1.2 ArS1.3 ArS1.4 ArS
ALSYGKRGDSDSAEVERRAYHSALPFGKRTPIEKRAYHTGLPFGKRDDEAAEQDAMMERRGFNSALMFGLHSA
1.5 ArS1.6 ArS1.7
LPFGKRGYHSALPFGKRLDITDEGDIIERRGYHSGLPFGKRATDDEAVNDILDQLRSEEN

SpL-SALMFaP EC439101.
SpS1.1
MQVQQITVFLVACTLSVLVVAYAQEDAETVLLNRLRDIAARAAAGELPDFFADVDDYKRGKKNMGSIHSHSGIH
SpS1.2
FGKRRDSESSERARNTKMRLLHPGLLFGKRAPVQKWDQWQAQDTYNPDWELGQFN

AjSALMFaP AWU78784.1
MKAYQIIVPAVMCVLAAILARTEADGELRILNNRLFELTKELEERLREQQLEDADLILTEDGDQEIIGMKVVSRA
AjS1.1 AjS1.2
WSPLVGQTGIAFGKRTDGLDRARSQTDQRAKTRSRSMFGNTALPFGKRAGYIPHAQEIWDLQDAANNLDTFEEV
AjS1.3
PVKKRMGFTGNTGILLGKRNADDAQE

Echinoderm precursors of F-type SALMFamide peptides

ArF-SALMFaP ALM01494.1

MMVRFVALLGAVSLLVCQSAGLDAADV^{ArS2.1}EEQDEFNKPYPDPSSYADLNALLGNNVPSLHSAS^{ArS2.1}KRQQSDREREVEAA
ArS2.2
QTQFY^{ArS2.2}PYGRRTDPRKASGGFT^{ArS2.2}FGKRGQYFIPIPYEKREMDEVNPYSVAKRDEL^{ArS2.3}TGLEEYQAS^{ArS2.3}KRSGPYSFNSGL
ArS2.4 ArS2.5 ArS2.6 ArS2.7 ArS2.8
TFGKREPEKRNIFGSYDFGKRAYGN^{ArS2.4}NFSF^{ArS2.5}GKRGMGVSSFSF^{ArS2.6}GKRSGLEGEQMPED^{ArS2.7}KRAFGDFS^{ArS2.8}FGKRN^{ArS2.8}GLSSF
TFGKREGER

SpF-SALMFaP XP_003724375.1

MLFTMRVLVALALCLCFIAPSPVLSFTMPEEK^{SpS2.1}FVENKMADVGE^{SpS2.1}EGTGQNNINSIAKSLIREVFGAAEEREMEAE^{SpS2.1}N
EAEDEAELSLSKRTTGSTRPQREIRARAQYAA^{SpS2.1}RRPPVTTRSKET^{SpS2.1}FGKRS^{SpS2.1}SPTPVISRPLAEQLLEELQRNAEMSD
SpS2.2 SpS2.3 SpS2.4 SpS2.5 SpS2.6
DWRESDKLALLNDAALYDSLVD^{SpS2.2}SHQVQ^{SpS2.2}KDAYSAF^{SpS2.2}SFGKRGMSAF^{SpS2.2}SFGKRAQPSFA^{SpS2.2}FGKRG^{SpS2.2}LMP^{SpS2.2}SFA^{SpS2.2}FGKRP^{SpS2.2}HGGS
SpS2.7
AFV^{SpS2.7}FGRRDWAPREQDFANAAEESGPY^{SpS2.7}KRGDLAFA^{SpS2.7}FGKREDQ

AjF-SALMFaP MF401999.2

MAPPSIFLLISVSFLAVLHPSHTE^{AjS2.1}LDHTGAIVKEIQMELPHDMETAQ^{AjS2.1}LLLQGQELRDLADELALDYLNERSDDD
Ajs2.1 Ajs2.2 Ajs2.3
DTFSNIAKREPGRSSTTNKDTMYEPFV^{Ajs2.1}RRGVPPYVVKV^{Ajs2.1}TYGKRSDD^{Ajs2.1}KRFKSPFM^{Ajs2.1}FGKREDLNGLD^{Ajs2.1}KRGYS^{Ajs2.1}PFMF
Ajs2.4 Ajs2.5 Ajs2.6 Ajs2.7
GKREMAQPHLSEK^{Ajs2.4}RARYSPFT^{Ajs2.4}FGKRDGADDEDENLEE^{Ajs2.4}VKRGGY^{Ajs2.4}SALY^{Ajs2.4}FGKRVPELAESDGGQSKLY^{Ajs2.4}FGKRGH^{Ajs2.4}RGG
Ajs2.8
QFSQ^{Ajs2.8}FKFGKREDGALGMDANEDDEMEQNFEKKDAITQN^{Ajs2.8}KRFKSSFYLGKRN^{Ajs2.8}YVAENEDMEDLQDV